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Answering implicit questions: the case of *namely**

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Abstract Though several prior works use English *namely* as evidence for the semantics of other elements, its own syntax and semantics have been mostly unexamined. In this paper, we focus on two central questions which we claim to be interrelated. First, what is the semantic contribution of *namely*? Second, how does *namely* combine with the surrounding material compositionally to produce appropriate overall sentence meanings? Given the apparent similarity of *namely* to fragments and Sluicing, one answer suggested in previous literature (e.g. [Onea & Volodina 2011](#), [Weir 2014](#), [Ott 2016](#)) is that an example like *Someone coughed, namely Bill.* involves deletion of silent linguistic material ... *Bill coughed.* Here, we argue against this idea, arguing that *namely* introduces an answer to an implicit specificational question combining with its complement (i.e. *Bill* in the above example) directly, similar to Qu-Ans analysis of fragments ([Groenendijk & Stokhof 1984](#), [Jacobson 2016](#)).

Keywords: ellipsis, fragments, implicit questions, Sluicing, specification

1 Introduction

One of the central questions in the syntax-semantics interface is how the grammar treats cases where a propositional meaning emerges from uttering a subsentential bit of language. For example, fragments like ‘Bill’ can be answers to explicit questions as in (1) and also to implicit questions, as in (2). In this paper, we aim to expand this debate through detailed analysis of an analogous but quite underexplored case study: the use of *namely*. Fragments with *namely* are possible in answers to implicit questions, (2b), as well as – more commonly – within a single speaker, (3).

- (1) a. A: Who (just) coughed?
b. B: Bill.
- (2) a. A: Someone coughed.
b. B: Yup, Bill. // Yup, namely Bill (cf. [Weir 2014](#))

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- (3) Someone did fabulously in semantics, namely Samantha.

For explicit question answer pairs like (1), there have been two main types of approaches in prior literature:

Clausal ellipsis: In (1) - B's answer is at some level of structure a full sentence, with ellipsis: Bill ~~coughed~~. (e.g. Morgan 1973, Merchant 2004)

Qu-Ans approach: In (1), B's answer has no unpronounced structure. $\llbracket \textit{Bill} \rrbracket$ combines with a function derived from (or, in some accounts, equivalent to) the semantics of the question to yield the relevant proposition. (e.g. Groenendijk & Stokhof 1984, Ginzburg & Sag 2000, Jacobson 2016)

Since *namely* occurs with fragments in a partially overlapping set of environments, the same fundamental question arises: does *namely* arise from clausal ellipsis or should the Qu-Ans analysis be extended to this case? Beyond this, the cases of *namely* which have received the bulk of the attention in previous literature are ones like (2b) and (3), which have an indefinite in the antecedent material, thus giving the impression that *namely* parentheticals are quite similar to Sluicing.

Our main claims are as follows. Despite the superficial connection with Sluicing and other fragments, *namely* always introduces an answer to a question which is **implicit** and **specificational**.¹ While ellipsis under identity fails to produce a suitably specificational semantics, the Qu-Ans analysis can be naturally extended to cover fragments with *namely*. An attempt to save ellipsis based on a non-identical specificational sentence (e.g. 'It is X.') is semantically viable, but we argue that such an approach would require a complex set of ad-hoc constraints on the complement of *namely* in addition to requiring obligatory ellipsis.

The road map for the rest of the paper is as follows: §2 discusses several problems for full clausal ellipsis under identity; §3 compares the implicit questions *namely* addresses with those of Sluicing, arguing that only the former are specificational; §4 extends the Qu-Ans approach to *namely*; §5 shows how specificational semantics emerges from this semantics and accounts for several seemingly aberrant cases; §6 argues that non-identity-based elliptical alternatives offer no advantage over the present approach and have several disadvantages; §7 concludes.

¹ The observation that *namely* introduces 'specificational' material is not novel to the present paper. Among others, Onea & Volodina (2011) and Ott (2016) make this same observation. Despite that, however, they do not incorporate this observation into their analyses; both argue for the clausal ellipsis analysis shown above in which the full semantics of the *namely* fragment does not directly make a specificational contribution. Our analysis differs from these in proposing that the *namely* complement is the answer to a specificational question (i.e., not the question *who coughed?* but rather a question which is paraphrased more accurately as something like *who was that person?*)

2 Problems for full clausal ellipsis under identity

The question of how the complement of *namely* contributes its propositional information has not been widely studied, but recent accounts (Onea & Volodina 2011 for the corresponding German case of *nämlich*, Weir 2014, Ott 2016) propose full clausal analyses with ellipsis under identity:²

- (4) a. Speaker A: Someone coughed.
b. Speaker B: Yup, namely Bill coughed.
- (5) Speaker A: Someone coughed, namely Bill coughed.

This would make the requisite identity condition similar to that needed for Sluicing under an ellipsis analysis of the latter. Notice that recent ellipses analyses of Sluicing require not only some sort of syntactic identity to an overt antecedent, but it has also been argued to require reference to implicit questions (Ginzburg & Sag 2000; AnderBois 2014). At first glance, then, it appears that a clausal analysis like that above requires nothing additional beyond what is needed for Sluicing (under an ellipsis analysis of the latter). An additional benefit to subsuming the conditions for *namely* to those needed independently for Sluicing centers on the contrasts in (6). Thus AnderBois (2014) notes that Sluicing is impossible in (6b) because the first clause does not raise the appropriate question; *namely* is similarly impossible here:

- (6) a. Someone passed the course, {namely Samantha/and I know who}.
- b. It's not true that no one passed the course, {*namely Samantha/*and I know who} (cf. AnderBois 2014 for Sluicing case)

But the conclusion that the conditions for *namely* ellipsis can be subsumed to those for Sluicing ellipsis is too hasty; there are several problems with this. First, the putative full clausal variant for *namely* does not always have the right semantics:

- (7) Fred scaled the tallest building in the world, namely Burj Khalifa.

The primary import of the *namely* part is not to tell us what building Fred scaled (though it indirectly does tell us this) but to specify what the tallest building is. Second, since the full clausal variants with *namely* are ungrammatical (unlike in Sluicing), ellipsis would thus have to be obligatory (see Jacobson (2009) for (8a)):

² Working on German *nämlich*, Onea & Volodina (2011) suggest that some kind of nonclausal analysis is also compatible with their observations, but argue nonetheless for the full clausal analysis of the sort shown in (4-5). However, although many of the observations we make are noted in this and other works in German cited therein, the question he uses to combine with the complement of *namely* is not a specificational one, so our analysis is not the same as his. We should also mention that German *nämlich* – which is their focus – has a use that English *namely* does not have. In all other respects, though, the facts they report for *nämlich* are the same as English *namely*; this is relevant for our discussion in §6.

- (8) a. John knows who coughed, namely Bill /*namely Bill coughed.
b. Someone coughed, namely Bill/*namely Bill coughed.

Third, *namely* can be licensed in cases where no specific overt antecedent is plausible, as in (9), making it difficult to see how identity-based ellipsis can work.

- (9) **Scenario:** I know that my roommate Sarah is applying to graduate schools, and I come home to see her popping open a bottle of champagne.
a. **Me:** A graduate acceptance?
b. **Sarah:** Yup, namely NYU!

Fourth, the elements that license *namely* differ significantly from those licensing Sluicing; we now turn to this in detail.

3 Sluicing and *namely*: different implicit questions

Basic examples with *namely* in previous literature often have indefinite antecedents, as in (2b) and (3), which might give the impression that *namely* and sluicing may be used in similar sets of environments. Beyond just being understudied, one likely reason for this is that *namely* has often been used to diagnose epistemic or free-choice inferences (e.g. by Alonso-Ovalle & Menéndez-Benito (2010), Condoravdi (2015)), where ordinary indefinites have served as controls. For example, in the literature on *-ever* free relatives, the infelicity of *namely* has been used to distinguish epistemic/free choice readings from other indifference readings. While the contrast between indefinite and free-choice antecedents may suggest that *namely* has a similar distribution to Sluicing, a closer look shows their distributions to be quite different.

First, whereas Sluicing prototypically relies on existential/indefinite antecedent material, *namely* readily allows for definite antecedents. In particular, definite descriptions whose definiteness is achieved via uniqueness, rather than familiarity, readily serve as hosts for *namely*, as in (7) and (10-11).³ In contrast, as seen in (10-11), corresponding Sluices are consistently degraded (as are non-elliptical full-clausal controls in many cases). One subcase discussed in previous literature are maximal/definite free relatives like (11), which Condoravdi (2015) argues allow for *namely* (following Dayal (1997), upon whose original example (11) is based).

³ We leave it to future work to explore in more details the potential predictions and ramifications of this distinction. One case where this generalization makes a clear prediction is for languages which morphosyntactically distinguish uniqueness and anaphoric definites (see, e.g. Schwarz (2009), Jenks (2015)). For example, Schwarz (2009) argues that German preposition-article contractions (e.g. *zum* ‘to the’) encode uniqueness, while uncontracted forms (e.g. *zu dem*) encode familiarity/anaphoricity. We therefore make the clear prediction that only the former should be compatible with *nämlich* ‘namely’, presuming that it is similar to English *namely* in relevant respects.

- (10) Fred scaled the tallest building in the world, { namely Burj Khalifa / *and I'll tell you which/what }.
- (11) I ate what Mary cooked, { namely ratatouille / *but I don't know what }.

While uniqueness-based definite descriptions represent a case where *namely* works but Sluicing doesn't, we also find the opposite: i.e. cases where only Sluicing works. One such case is what have come to be known as 'sprouting', i.e. cases in which the elliptical question relates semantically to the prior material either as an adjunct or implicit argument. As seen in (12), parallel examples with *namely* are typically not possible (though see §5 for discussion of an apparent counterexample).

- (12) a. Sharon was murdered, {but I don't know by whom/ *namely by Charles }.
- b. Juan celebrated his graduation, { but I don't know where/ *namely on the beach }.

The second case where Sluicing is possible but *namely* is not is with disjunctive antecedents, as in (13a). Disjunctions pattern with indefinites in serving as antecedents for Sluicing (as discussed by AnderBois (2014)), but corresponding cases of *namely* are ill-formed. Their infelicity is all the more puzzling since indefinites with domains explicitly restricted to the same set of options are markedly better. We set aside the case of disjunction here, as we believe it tells us more about the nature of disjunction than it does about *namely* (see §7.1 for further discussion).

- (13) a. We'll hire Sally or Ted, {and I know which/*namely Sally }
- b. We'll hire one of Sally and Ted, namely Ted.

A somewhat more complicated case, first discussed by Jacobson (2009), is presented by embedded questions. First, the situation with Sluicing itself remains is complicated to begin with.⁴ Romero (1998) claims that embedded wh-questions can license Sluicing provided that the larger clauses containing them meet a focus condition by contrasting in some way. This claim is illustrated by examples with contrasting wh-phrases and contrasting subjects, (14a-14b). In apparent contrast to this generalization, however, a difference in the question-embedding verb itself does produce a similarly felicitous example, as seen in (14c). We leave it to future work to example the Sluicing data in more detail, concluding here only that embedded questions can only serve as antecedents for Sluicing under limited conditions.

- (14) a. We know how many papers this reviewer has read, but we don't know which ones. Chung, Ladusaw & McCloskey 1995

⁴ Thanks for Matt Barros for discussion of the Sluicing data in this area and analytical issues they raise.

- b. We know how many papers this reviewer has read, but THEY *don't know how many*. Romero 1998
- c. #? We don't know how many papers this reviewer has read, but we wonder how many.

Turning to *namely*, we find that examples with *namely* and embedded questions are impeccable, even when corresponding sluices are infelicitous, as in (15). While there may be a temptation to attribute the ungrammaticality of the sluicing example to a principle such as Max-Elide, this is not possible here since there is no larger elliptical competitor: ... *he himself hasn't* has a different meaning, and Null Complement Anaphora (i.e. ... *he himself has not figured out*) is not grammatical.⁵

- (15) John couldn't sleep. His therapist finally realized what was bothering him, {namely, his fear of being fired/*but he himself has not yet figured out what}

While *namely* is licensed by embedded questions even when sluicing is not, embedded questions with *namely* are, however, not always possible in the same constraint. First, they depend on the lexical semantics of the embedding predicate, as seen in (16). Second, holding the predicate constant, we find that negated counterparts of otherwise impeccable examples are quite bad.

- (16) *Isabel wondered who got an A on the test, namely Sally.
- (17) John {has/*hasn't} figured out who I plan to give the prize to, namely Sally.

To summarize, then, we find that while overlapping in the cases which have been most discussed previously – indefinites and free-choice elements – the range of antecedents for sluicing and *namely* differs substantially, as summarized in Table 1.

Having shown that sluicing and *namely* differ substantially in the range of antecedents that license them, we turn now to explain the distribution of *namely*. Taking the embedded question data as a jumping off point, note that the felicitous uses of *namely* are those which also readily license an individual discourse referent (or are good in contexts where such a referent is already available), as seen in (18).

⁵ Note that the *namely* phrase in embedded questions such as (15) cannot attach to *what* and hence cannot be seen as a genuine 'appositive' (we recast the example using shorter material, to rule out the possibility that the ill-formedness is due to having material that is too heavy as an appositive):

- (i) a. John figured out who I will give the prize to – namely Sally.
- b. *John figured out who, namely Sally, I will give the prize to.

Antecedent	Sluicing	Namely
Indefinite	Yes	Yes
Free choice	No	No
(Uniqueness) Definite	No	Yes
Sprouting	Yes	No
Disjunction	Yes	No
Embedded question	Depends on prosody	Depends on semantics

Table 1 Summary of antecedents for Sluicing and *namely*

- (18) a. John has figured out who I plan to give the prize to. She deserves it.
 b. John hasn't figured out who I plan to give the prize to. ?*She deserves it.
 c. Isabel wondered who got an A on the test. *?He will thank his tutor.

Returning then to (6) – which at first glance suggested a parallel with Sluicing – the explanations for the unacceptability of (6b) in the two cases are somewhat different. In particular, AnderBois (2014) argues that Sluicing is bad in this case because the double negation prevents the potential QUD (i.e. ‘issue’ in the sense of inquisitive semantics) from being made salient, while *namely* is unacceptable because it does not evoke a discourse referent. Indeed, this is a classic ‘marbles’ example of the sort attributed to Barbara Partee and discussed in Heim 1982 and subsequent work. Of course it is likely that these two observations about double negation are at some deeper level related, but they are not *prima facie* the same, and so we leave open here the questions of whether and how they are to be unified.

(19) further shows that the parallelism between *namely* and the licensing of a discourse referent extends beyond indefinites and definites to implicit arguments, doubly negated indefinites, and other ‘sprouting’-like cases.⁶

- (19) a. Sharon was murdered. *He was quite scary.
 b. It's false that no one passed the course. *She was a terrific student all semester.

Whereas Sluicing requires a salient question or issue in prior discourse, for *namely*, then, we claim that it is the licensing of an individual discourse referent which is required. This generalization is spelled out informally in (20). Note that this also extends to the graduate acceptance example in (9), where a pronominal reference to the school is quite acceptable (e.g. ... *Yup, and it's one of the best*

⁶ The one place the parallelism breaks down is in the case of disjunction. While we leave a detailed investigation of disjunction to future work, see §7 for arguments that the infelicity of disjunction with *namely* is due a conflict between specification and the felicity of conditions of disjunction in general.

school for sociolinguistics!). Conversely a minimally different case with no prior linguistic material of any kind such as one where the speaker just sees the roommate popping the cork on the champagne bottle neither provides a discourse referent for a school nor allows for the use of *namely*.

- (20) ***Namely* generalization:** *namely* is licensed if and only if (i) there is material in the preceding discourse which supports a discourse referent, and (ii) the fragment serves to further specify that discourse referent.

The basic insights it captures are very similar to those expressed in the few recent works which discuss *namely* such as [Onea & Volodina 2011](#) and [Condoravdi 2015](#). However, these works each focus more on one half of the generalization than the other because of the specific empirical focus they have. [Onea & Volodina's \(2011\)](#) empirical focus is on German *nämlich*, which has a variety of non-specificational uses as well and so while the authors explicitly acknowledge the specificational nature of cases like the ones here, the need for a discourse referent to be specified is backgrounded in their discussion since German *nämlich*, unlike English *namely*, does have certain uses where no such discourse referent is required.⁷

[Condoravdi \(2015\)](#), on the other hand, proposes essentially the same generalization as in (20), but based solely based only on data from plain and *ever* free relatives. As such, her discussion focuses on the availability of discourse referents, with little discussion of the role that specification plays in determining the distribution of *namely* (e.g. the infelicity of *namely* with proper names and strongly familiar/anaphoric definites). By considering a broad range of different (potential) antecedents for *namely*, we hope to have shown that both parts of the generalization have important roles to play and that together, they account for the whole range of (potential) antecedents for *namely*.

Having presented a generalization about the distribution of *namely*, we turn now to develop a compositional analysis of *namely* that captures it. [Condoravdi 2015](#) is a paper about free relatives and since its discussion of *namely* is a side note in this other endeavor, does not develop an account of the compositional syntax/semantics of *namely* beyond the generalization. [Onea & Volodina \(2011\)](#), on the other hand, propose for *nämlich* an ellipsis based account of the sort we have argued against above in §2. While they claim that “not much seems to hinge on this”, the argue we make here is precisely the opposite – that careful consideration of the specificational semantics of *namely* and the conditions under which it occurs obliges a non-elliptical account (see §6 for further discussion).

⁷ Moreover, while they do talk in various places about English *namely*, their analysis is quite explicitly an analysis of German *nämlich* and they also are careful to note that “There is a whole class of what we wish to call specificational particles, which have hardly been studied, and to which the analysis of *nämlich* should extend”.

4 A Qu-Ans implementation which accounts for this generalization

We have seen that *namely* introduces the answer to an implicit specificational question about a discourse referent, and that a specificational question is not the same as the implicit question relevant for Sluicing. Moreover, the question must be implicit; *namely* cannot introduce an answer to an explicit question:

- (21) **A:** Who coughed? **B:** *Namely, Bill.

We return to this below.

We are now in a position to extend the Qu-Ans analysis to the case of *namely*. Recall that the Qu-Ans analysis of the dialogue in (22) relies on applying the function in (23a) with the answer in (23b) to give the proposition in (23c):

- (22) **Speaker A:** Who coughed? **Speaker B:** Bill
- (23) a. $\lambda x[\llbracket \text{coughed} \rrbracket(x)]$
 b. $\llbracket \text{Bill} \rrbracket$
 c. $\llbracket \text{coughed} \rrbracket(\llbracket \text{Bill} \rrbracket)$

The question then arises as to what contributes the function in (23a). Ginzburg & Sag (2000) and Jacobson (2016) take this to actually be the meaning of main clause questions (Jacobson notes that this is true only of main clauses; embedded clauses can still have the Hamblin semantics). However, this will not do for the case of *namely*, because we assume that implicit questions are Hamblin sets. But this is not a problem: Groenendijk & Stokhof (1989) (henceforth G&S) show that there is a simple mapping from the function in (23a) to the relevant Hamblin question and vice-versa. Take any Hamblin question; for example the Hamblin question for (23a) is the set of propositions of the form $\llbracket \text{coughed}'(x) \rrbracket$ for all x in some relevant domain D . Call that set HQ. Then the corresponding G&S function (notated as $GS(HQ)$) is the function f with domain D such that for all x , $f(x)$ is a member of HQ. (HQ can similarly be derived from the relevant f ; it is the set of propositions P such that for all x $f(x)$ is in P .) With this, the lexical entry for *namely* is as follows:

- (24) **Syntax:** selects for any constituent of a certain category (this is some distinguished set of categories which are just those that also occur in short answers in general, in fronted position in Topicalization, etc.)
Semantics: $\llbracket \text{namely} \rrbracket = \lambda X[\lambda Q[GS(Q)(X)]]$
 where Q an implicit specificational question and X is a variable ranging over any of the types that correspond to the categories of allowable complements of *namely*.

In prose, then, *namely* asks for some complement and an implicit question, derives the GS function from that question, and applies that function to the meaning of its complement.

This does leave open several interesting questions. Note first that as stated here, the fact that the question must be implicit is hardwired into the semantics of *namely*. This can be seen as a temporary fix; we would hope that this follows from something more general. The most hopeful possibility is that an overt question like that in (21) simply doesn't support the requisite specificational question. It does introduce a discourse referent as shown by the availability of subsequent anaphora:

- (25) A. Who_i did best on the final? B. I'll give you a hint – they_i are only a sophomore.

Nonetheless, it could well be that this doesn't support a specificational question about this discourse referent. Alternatively, it might be that there is a constraint to the effect that parenthetical material can never serve as 'at issue' content (see, e.g. the case of non-restrictive relatives discussed in Potts 2005, AnderBois, Brasoveanu & Henderson 2015 and others and Onea 2016 for a broader discussion of this including German *nämlich*), and *namely* X tends to be a parenthetical. Unfortunately, this does not seem to cover all the cases; it by itself does not rule out *Namely Bill* as a bare answer to the question in (21) (nor is it clear that it is right to call it a 'parenthetical' in (4)). We thus leave this issue open for future research, being content to temporarily build the implicit question restriction in to the lexical semantics of *namely*. Second, this also means that the grammar must have access to the notion of a 'specificational' question (or, presumably also statement). We leave open the question of how to define this notion in detail.

One further contrast to note about the account proposed here is that while it makes reference to implicit questions, the necessary implicit questions are not QUDs in the sense of Roberts (2012). The account here relies on implicit specificational questions, which while salient in the discourse are not ones which the interlocutors were previously committed to resolving (a defining property of QUDs in Roberts's (2012) sense). In some cases, such as (26), the form of the antecedent material may implicate that the identity of the discourse referent is irrelevant or unknown, and therefore not a likely issue of conversation.

- (26) I ate {something/what} Alejandro baked.

In contrast, although they note the specificational nature of *namely* in their prose, previous analyses like that of Onea & Volodina (2011) that make use of non-specificational clausal sources also assume that the implicit question this content addresses is a QUD rather than an implicit specificational questions. While some works such as Ginzburg 1996 and Onea 2016 have developed more permissive

notions of QUD that treat specificational implicit questions as a particular kind of QUD, this does not change the fact that the implicit questions *namely* addresses are only the specificational ones whose resolution is not a prior commitment of the speaker. We leave open the question of whether a notion of implicit question that unifies these two types is feasible or desirable for other purposes, but for *namely* the distinction is an important one.

5 Specificational semantics emerges compositionally

In the previous section, we have presented a proposal for the syntax and semantics for *namely* in which *namely* *X* is a function taking a function derived from an implicit specificational question and returning the proposition obtained by applying that function to *X*. That is to say, it returns true if and only if the complement of *namely* specifies a prior discourse referent, thereby answering the specificational question. While the internal composition of *namely* is therefore quite distinct from that of specificational copular clauses, we nonetheless ensure that semantic restrictions that hold of specificational copular clauses will also hold of *namely* by virtue of the fact that they must hold of the implicit question *namely* employs.

For example, Higgins (1979) describes at length the configurations of different kinds of elements such as demonstratives, proper names, definites, and indefinites that allow for specificational readings in copular clauses. For example, a proper name can stand in the specification relation to (k.e. can “specify”) an indefinite noun phrase, (27a), while reverse is not possible, (27b). Beyond this Higgins (1979) argues that other grammatical phenomena such as *wh*-movement and ellipsis can be used to distinguish specificational copular clauses from other types. For example, as seen in (28), he shows that VP-Ellipsis distinguishes specificational copular sentences from non-specificational ones.

- | | | |
|------|---|--------|
| (27) | a. Jack Jones was a man I met yesterday. | |
| | b. *A man I met yesterday was Jack Jones. | |
| (28) | a. My neighbor is Ellie, *my best friend isn't. | ✓ Spec |
| | b. Ellie is my neighbor, Sally isn't. | ✗ Spec |

As shown in (29-30), these same asymmetries are found with *namely* (see also Ott 2016 for similar observations):

- | | | |
|------|---|--------|
| (29) | a. *I got coffee with Jack Jones, namely a man I met yesterday. | |
| | b. I got coffee with a man I met yesterday, namely Jack Jones. | |
| (30) | a. I'm bringing a pie to my neighbor, namely Ellie. | ✓ Spec |
| | b. *I'm bringing a pie to Ellie, namely my neighbor. | ✗ Spec |

Beyond this, Higgins (1979) shows that specificational copular clauses are possible with a wide variety of different syntactic categories for which a transformational analysis is not feasible, as in (31). Once again, we see that analogous examples with *namely* are possible in (32).

- (31) a. Mitka's (silliest) fear is of the left side of the bridge.
b. They told me that that what Mary was going to do was give the dog to John.
- (32) a. Mitka has a silly fear, namely of the left side of the bridge.
b. They told me what Mary was going to do, namely give the dog to John.

Note that examples like (32a) appear at first blush like they might be examples of 'sprouting' uses of *namely* and therefore inconsistent with the generalization in §3. In particular, it may seem that *of the left side of the bridge* would be a complement to *fear*. Comparing this case with the ungrammatical 'sprouting' cases, repeated in (33), we see a clear difference. Whereas the apparent sprouting in (32) have specificational copular counterparts in (31), the ungrammatical 'sprouting'-like cases like (33) plainly do not, as seen in (34).

- (33) a. Sharon was murdered, {but I don't know by whom/ *namely by Charles}.
b. Juan celebrated his graduation, { but I don't know where/ *namely on the beach}.
- (34) a. *Sharon was murdered is by Charles.
b. *Juan celebrated his graduation is on the beach.

Whereas Sluicing allows for 'sprouting' examples regardless of where there is a specificational copular counterpart, *namely* only allows for this in the cases like (32a) where a specificational copular counterpart is possible. As discussed above, this sort of pattern provides a knockdown argument against the *namely* material arising from a full clause silenced under identity, as opposed to a non-specificational copular clause. Whereas the possibility of a non-copular counterpart is at least correlated with the grammaticality of Sluicing (though see van Craenenbroeck 2010, Barros 2014 for arguments that this is not always so), for *namely* it is only the existence of a specificational copular counterpart which is important.

While we have shown that the potential for *namely* fragments is related to that of specificational copular clauses, this of course does not mean that *namely* fragments arise from non-pronunciation of parts of a covert specificational copular clause. Rather, the account we have developed relies on the semantic notion of specification, which is itself what determines both the use of *namely* fragments and as Higgins (1979) argues, the properties of specificational copular clauses. While we therefore

do not have a similarly knockdown argument against an approach relying on ellipsis with specificational copular clauses as sources, we show in the next section that such an approach does not buy anything over ours and requires fairly unusual additional assumptions to be made.

6 Could ellipsis be saved?

So strong is the desire to derive all propositional content of short utterances from full sentences, that several people (including two anonymous SALT reviewers) have suggested ways to account for our generalization using ellipsis. These attempts require abandoning ellipsis with an identity condition (as in the full clausal ellipsis analyses shown in (4-5)), and instead derive these from the silencing of a constant such as *it is* *X* or *pro is* *X*; the former is similar to proposals such as van Craenenbroeck 2010 to derive some Sluices from ‘short clefts’. Before proceeding, let us unpack the possibilities a bit more. One is that the ‘source’ is *pro is* *X* for ‘pro’ some pronoun picking up the relevant discourse referent, and *is* being specificational/identificational *be*. This seems unlikely since a regular pronoun is generally not allowed in corresponding full cases (without *namely* – full cases with *namely* are always bad to which we return):

- (35) A man coughed.
 a. It was Bill.
 b. #He was Bill.

Instead, then, let us consider an analysis where *it be* is silenced; hence (5), for example is:

- (36) Someone coughed, namely ~~it was~~ Bill.

But what is the analysis of the *it was* *Bill* clause itself? The use of the term ‘short cleft’ for similar cases in the Sluicing literature suggests that overt *it be* *X* clauses themselves (as in (35a)) actually are full clefts with some material silenced:

- (37) It was Bill ~~who/that~~ coughed.

In the *namely* case, then, the *wh*-portion is silenced by the general process allowing ‘short clefts’, and the *it be* portion silenced by an additional mechanism (supposedly also alive in those cases in which Sluices are argued to be hidden short clefts).

But that can’t be the right analysis of these so-called short clefts, because this simply reintroduces the problem of what licenses the silencing of the *wh*-portion. Consider again (38) with either the *namely* continuation or equally well with an overt *it is* and no *namely*:

Answering implicit questions: the case of *namely*

- (38) a. Fred scaled the tallest building, namely it is Burj Khalifa ~~which/that is the tallest building~~.
b. ... it is Burj Khalifa ~~which/that is the tallest building~~.

As seen in our earlier discussion of the clausal ellipsis theory, there is no possible identity condition which could support the ellipsis of *which/that is the tallest building*, so a literal cleft with silenced material cannot be the underlying representation of the *it is X* clause.

Similarly, there could be no identity-based silencing analysis for cases like the graduation acceptance in (9). The underlying full cleft for Sarah's answer would have to be something like (39b-39c) or some other potential paraphrase, none of which will satisfy any kind of identity condition on ellipsis:

- (39) **Scenario:** I know that my roommate Sarah is applying to graduate schools, and I come home to see her popping open a bottle of champagne.
a. **Me:** A graduate acceptance?
b. **Sarah:** Yup, namely it was NYU that I got into!
c. **Sarah:** Yup, namely it was NYU that accepted me!

This leaves us with the conclusion that 'short cleft' is a misnomer (at least for these cases), but there are perfectly viable alternative analyses of overt *It was Bill* cases as in (35a). We will not spell out all the full details here nor the full set of possibilities, but let us assume that *it* is a pronoun picking up some discourse-salient object that can be paraphrased as 'the identity of the person who coughed', and *be* again is the specificational *be*. Or, perhaps *it* is anaphoric to the implicit question, and the full construction has the question/answer semantics of specificational sentences put forth in Ross 1985 and Schlenker 2003.⁸

Let us see what it would take to formulate such an analysis. First, we need a rule allowing for the silencing of a constant of the form *it be X* where *is* is the specificational *be*. A believer in "Sluicing from short clefts" might argue that this is independently motivated for the Sluicing case - but our data reveals a heavy caution for that analysis of some Sluices. For, if ellipsis of *it be* is generally allowable in Sluicing, then there is no explanation for the different distribution of *namely* and Sluicing. For example, there is no reason why (11) should be bad in the Sluicing

⁸ But beware of a potential circularity in relying on those analyses. For they derive the answer portion of what they analyze as a question answer pair analysis of specificational sentences as a full clause. This, then, would simply reintroduce all of the same problems about satisfying an identity condition. While we do not necessarily reject a 'hidden question/answer' analysis for some specificational sentences, we do not derive the answer itself from a full clause, but rather rely on the Qu-Ans analysis, avoiding this problem.

case (see §7.2 for discussion). Second, we still need the grammar to access the notion of a specificational sentence as this applies only with *be* of ‘specification’.

Third, this places quite a heavy burden on the complement of *namely*: it is only allowed to take a complement of the form *it be_{SPEC} X*. It is rather unusual for a lexical item to select such details about the inner makeup of its complement (compare this to our syntactic analysis of *namely*). Semantically, it presumably is the identity function on implicit specificational questions, or implicit questions about the identity of some discourse referent. We leave open exactly what restrictions would need to be built in on the domain of this identity function, but we can note that here too something will be needed to ensure that *namely* is possible only with material that addresses an implicit question. Note that *it is X* is a perfectly good answer to an explicit question as in (40); it is only with *namely* that this would be blocked:

(40) **A:** Who coughed? **B:** It was Bill. / **Namely, it was Bill.*

Moreover, this analysis has no advantage over ours with respect to certain matching effects that we have not yet dealt with. There are some preposition matching effects in English which are complex and so space precludes a discussion of these, but let us consider case matching in the corresponding German case of *nämlich*. Ott (2016) points out that these show the same kind of case matching effects found in Sluicing; we assume that the analysis of *nämlich* is similar to our analysis of *namely* (modulo the fact that *nämlich* has an additional use discussed in Onea & Volodina 2011; otherwise their distribution seems quite parallel). Our analysis has no account of this; the hope would be that something like the direct matching approach of Ginzburg & Sag (2000) for Sluicing would extend here.⁹ But the silencing of *it be* also provides no such account since matching is normally not required in such cases (see Merchant 2001 for discussion of this with respect to the Sluicing from short cleft analyses). So nothing is to be gained by this kind of ellipsis analysis with respect to matching phenomena.¹⁰

Finally, and most strikingly, unlike for most cases of so-called ellipsis, the silencing is obligatory, since the following is completely bad¹¹:

(41) Someone coughed, **namely it was Bill.*

9 Groenendijk & Stokhof (1984), Ginzburg & Sag (2000), and Jacobson (2016) all provide an account of Case Matching of direct question-answer pairs under the Qu-Ans analysis. Unfortunately, that account will not extend directly to the case of implicit question-answer pairs, as the interested reader can verify.

10 Ott (2016) gives other rather common ‘connectivity’ arguments for ellipsis in a range of ‘appositives’ including *namely* – arguments based on, e.g., reflexive distribution and ‘bound variable’ connectivity. These arguments have been answered for similar cases at least as early as Jacobson 1994 and Sharvit 1999; see Jacobson 2016 for discussion concerning the fallacy of these kinds of arguments in general.

11 Matt Barros (p.c.) suggests to us that the ‘source’ could be not what we have, but rather (i) with parenthetical intonation, which he reports to be grammatical in his judgment.

And note that it is not enough to just require silencing of *it was* but again the lexical entry for *namely* will require that *it be X* be the complement and nothing else with specificational semantics, since (42) and other more lengthy specificational options are equally bad:

- (42) a. Someone coughed, **namely* the person who coughed was Bill.
b. Someone coughed, **namely* the identity of the person who coughed was Bill.

In sum, there is no obvious advantage to an ellipsis analysis and several disadvantages. The grammar still requires access to the notion of specification; it requires access to questions which are only implicit, the syntactic portion of the lexical entry for *namely* is considerably more complex than in our theory; the semantics might be simpler but this is not clear since the ‘implicit question’ part needs to be built in somewhere; this requires a rule of silencing (not independently motivated) and some principle to make it obligatory here. This seems to be a lot of trouble merely to preserve the intuition that all fragments which give rise to propositional inferences are underlyingly clausal.

7 Conclusions and future directions

In this paper, we have presented a detailed examination of the syntax and semantics of fragments with English *namely*. What little previous literature there is on *namely* (and related words like German *nämlich*) has analyzed such fragments as being the results of deletion under identity of a full clause. While adopting some of the insights of this literature – most notably, [Onea & Volodina’s \(2011\)](#) claim that *namely* fragments serve a specificational function – we have argued against the viability of a deletion under identity-based approach. Specifically, we have argued that the putative full clausal sources are not themselves grammatical and even if they were, do not produce the necessary specificational semantics.

Instead, we have proposed an account on which *namely* does not rely on deletion under identity with some prior linguistic material, but rather, composes directly with the surface fragment. In particular, we have extended the Qu-Ans approach to other kinds of fragments, claiming that *namely* composes with the fragment and (the

(i) Someone coughed, it was, *namely*, Bill

In our judgments, this full clausal version is not possible and we have been unable to find naturally-occurring examples of this sort, and so we leave to future work to determine whether such full-clausal sentences are possible for some speakers. Setting aside these concerns about the data itself, this potential source still leaves open the question of how to license the ellipsis from (i) and additionally requires an explanation for the intonational difference with the elliptical forms.

G&S function variant of) an implicit question specifying a prior discourse referent. The account therefore predicts the core empirical generalizations we have made for *namely*: *namely* is licensed if and only if (i) there is material in the preceding discourse which supports a discourse referent, and (ii) the fragment serves to further specify that discourse referent by addressing this implicit specificational question.

Similar to accounts of Sluicing that rely on (potential) QUDs or related notions (e.g. Ginzburg & Sag 2000, AnderBois 2014), the account relies on the idea that the compositional semantics must have access to implicit questions. However, despite this commonality, the nature of the implicit questions needed in the two cases is quite different in ways that shape the range of contexts in which each is possible. For example, uniqueness-based definite descriptions and certain embedded questions both introduce discourse referents and therefore license *namely*, even when further specifying this discourse referent was not a salient issue in discourse. Sluicing, on the other hand, is not possible in these cases for precisely this reason (see below). On the other hand, there are cases such as sprouting with adjuncts, where a salient implicit question can license Sluicing, but no discourse referent is licensed and so *namely* is correspondingly impossible. All of this is to say that Sluicing and *namely* involve different sorts of implicit questions and correspondingly have quite different distributions. These differences have been underappreciated in previous literature in large part because the kind of antecedent material that has been most discussed – indefinites – introduce both a salient issue of the sort needed for Sluicing and a discourse referent in need of specification.

7.1 The case of disjunction

There is, however, one case we have seen where the parallel between the availability of discourse referents and the licensing of *namely* appears to break down: disjunctions such as (43), repeated from (13).

(43) We'll hire Sally or Ted, **namely* Sally.

While there are many complex details about the conditions under which such 'external anaphora' is available (see Simons 1996 and references therein for discussion), disjunctions often license a discourse referent in subsequent discourse, as in (44). Even in cases where this is possible, however, *namely* remains quite infelicitous as we have seen. Another minimal pair is found in (45).

(44) We'll hire Sally or Ted, and they will sit at the desk over there.

(45) a. My father caught a trout or a seabass yesterday, **namely* a sea bass.
b. My father caught a trout or a seabass yesterday and then gutted it in the sink.

Since our first condition for *namely* is met (material supporting a discourse referent), we tentatively conclude that it is the second condition that is the issue here, i.e. the ability for the discourse referent to be further specified. Concretely, it seems reasonable to assume that the semantics/pragmatics of disjunction generally is incompatible with specifications of the relevant kind since it requires in some way that both of the two disjuncts be live options in order to be felicitous. In essence, then, the hope would be that disjunction patterns together with free choice items like *wh-* + *ever*, which as discussed by [Condoravdi \(2015\)](#) and references therein, similarly resist further specification despite supporting discourse referents. We leave it future work to explore precisely why disjunction produces this effect (especially since ordinary indefinites do not).

7.2 Implications for sluicing

Finally, while not directly relevant to the analysis of *namely* per se, our study reveals two interesting facts/consequences for the analysis of Sluicing. First, the different distribution of material that licenses *namely* and Sluicing casts doubt on analyses of the latter which allows some Sluices to be elliptical for ‘short clefts’, assuming that by this is meant some sort of specificational material. Consider for example the case of the free relative in (46) which hosts *namely* but not a Sluice: (**I ate what she cooked, but I don’t know what*). But a full version with *what it was* is good:

(46) I ate what she cooked, but I don’t (exactly) know what it was.

An advocate of “sluice from short cleft” might object to this argument by claiming that in the good (46) *it* is the referential pronoun *it* and not the *it* (presumably an expletive) that one finds in a ‘short cleft’. While it is difficult to know (especially since it is not clear exactly what is meant by a ‘short cleft’) we can note that the full cleft is fine here too and so if the item *it* in so-called short clefts is the same as that item in full clefts, then (46) should have an analysis in which *it* is an expletive:

(47) I ate what she cooked, but I don’t know (exactly) what it was that she cooked.

Again, then, there is no obvious reason why the putative short cleft source for Sluicing should be unavailable. Hence, just as it is unlikely that *namely* complements are elliptical for material of the form *namely it is X*, it is also unlikely that the complements of *wh*-words in Sluicing are elliptical versions of this kind of material. Second, we have introduced a new puzzle: why is it that embedded questions such as those discussed in [Section 3](#) often do not license Sluicing (while some others do, see above discussion)? We note again that this is not due to MaxElide. We have no answer for this question, but as far as we know this has not been previously observed in the literature, so we conclude our discussion with the contribution of this new puzzle for Sluicing.

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